

**In the Claims:**

1. (Currently Amended) A method for determining imaging errors of an optical system in the production of a mask for semiconductor component fabrication, the method comprising:

measuring optical properties of a structure of the mask using a measuring system;

~~detecting at least one parameter for the characterization of the mask;~~

automatically selecting a stored correction data record from a correction database in a manner dependent on ~~[[said]]~~ at least one parameter ~~for the characterization of that~~ characterizes the mask, the correction data record including information related to errors in the measuring system;

~~measuring optical properties of a structure of the mask using a measuring system;~~

combining measurement results associated with the measured optical properties with the correction data record ~~associated with the mask in a data processing device~~ to produce a corrected measurement result; and

storing a measurement data record with the corrected measurement result in a database system.

2. (Currently Amended) The method according to Claim 1, wherein the parameter ~~for the characterization of~~ that characterizes the mask is the wavelength at which the mask is used in a photolithography method.

3. (Currently Amended) The method according to Claim 1, wherein the parameter ~~for the characterization of~~ that characterizes the mask is a substance property of the mask.

4. (Currently Amended) The method according to Claim 1, wherein the correction data record includes information for the correction of inhomogeneities of a radiation source[[,]] of the measuring system,~~in particular of at least one of an associated CCD chip and an optical element.~~
5. (Currently Amended) The method according to Claim 14 ~~Claim 4~~, wherein the optical element comprises a lens.
6. (Currently Amended) The method according to Claim 1, wherein the parameter ~~for the characterization of~~ that characterizes the mask comprises ~~is identified by an~~ identification mechanism [[means]].
7. (Currently Amended) The method according to Claim 6, wherein the identification mechanism [[means]] comprises a bar code.
8. (Currently Amended) The method according to Claim 1, wherein measuring optical properties comprises measuring at least one of CD values [[and]] and/or positional errors ~~are determined by the measuring system as said measured optical properties of the~~ mask.

9. (Currently Amended) A device for determining imaging errors of an optical system in the production of a mask for semiconductor component fabrication, the device comprising:

~~a means for detecting at least one parameter for the characterization of mask,~~

[[a]] correction database with at least one stored correction data record,

a data processor ~~processing means~~ for automatically selecting a correction data record from the correction database in a manner dependent on [[said]] at least one parameter ~~for the characterization of~~ that characterizes the mask, the correction data record including information related to errors in the measuring system,

a measuring system for determining optically measurable properties of the mask,

means for combining measurement results of the optically measurable properties of the mask with the correction data record associated with the mask to produce a corrected measurement result, and

means for generating a measurement data record with the corrected measurement result in a database system.

10. (Currently Amended) The device according to Claim 9, wherein said measuring system includes means for measuring ~~at least one of~~ CD dimensions[[, and]] and/or positional errors of one of a CoG mask and a phase shift mask.

11. (Original) The device according to Claim 9, wherein the mask is designed for wavelengths of 365nm, 193nm or 157nm.

12. (Currently Amended) A method for determining imaging errors of an optical system in the production of a mask for semiconductor component fabrication, the method comprising:

measuring optical properties of a structure of the mask using a measuring system;

detecting at least one parameter for the characterization of the mask;

automatically selecting a stored correction data record from a correction database in a manner dependent on ~~[[said]]~~ at least one parameter ~~for the characterization of that~~ characterizes the mask, wherein the correction data record includes information for the correction of inhomogeneities of an illumination system;

~~measuring optical properties of a structure of the mask using a measuring system;~~

combining measurement results associated with the measured optical properties with the correction data record associated with the mask in a data processing device to produce a corrected measurement result; and

storing a measurement data record with the corrected measurement result in a database system.

13. (Currently Amended) A device for determining imaging errors of an optical system in the production of a mask for semiconductor component fabrication, the device comprising:

~~[[a]] means for detecting at least one parameter for the characterization of that~~ characterizes the mask;

a correction database with at least one stored correction data record, wherein the correction data record includes information for the correction of inhomogeneities of an illumination system;

[[a]] data processing means for automatically selecting a correction data record from the correction database in a manner dependent on [[said]] at least one parameter ~~for the characterization of~~ that characterizes the mask;

a measuring system for determining optically measurable properties of the mask;  
means for combining measurement results of the optically measurable properties of the mask with the correction data record associated with the mask to produce a corrected measurement result; and

means for generating a measurement data record with the corrected measurement result in a database system.

14. (New) The method according to Claim 4, wherein the correction data record includes information for the correction of inhomogeneities of at least one of an associated CCD chip and an optical element.

15. (New) The method according to Claim 1, further comprising detecting the at least one parameter that characterizes the mask.

16. (New) The method according to Claim 1, wherein the measurement results associated with the measured optical properties and the correction data record are combined in a data processing device.